

What Is Claimed Is:

1. An image recording apparatus, comprising:  
first recording control means for controlling recording of an inputted image signal into a first recording region of a recording medium;  
fetching means for fetching a frame number of a representative picture of the image signal;  
first calculation means for calculating a GOP number of a GOP of the image signal which includes an intra-picture necessary to play back the representative picture based on the frame number fetched by said fetching means;  
second recording control means for controlling recording of recorded position information corresponding to a recorded position on the recording medium of the GOP of the GOP number calculated by said first calculation means into a second recording region of the recording medium;  
second calculation means for calculating an offset between the intra-picture and the representative picture in the GOP of the GOP number calculated by said first calculation means; and  
third recording control means for controlling recording of the offset calculated by said second

calculation means into a third recording region of the recording medium.

2. An image recording apparatus according to claim 1, wherein said second recording control means controls recording of an address of a top frame of the GOP on the recording medium as the recorded position information corresponding to the recorded position on the recording medium of the GOP of the GOP number calculated by said first calculation means.

3. An image recording apparatus according to claim 1, wherein said second recording control means controls recording of an address of a top frame of the GOP on the recording medium and the number of the GOP as the recorded position information corresponding to the recorded position on the recording medium of the GOP of the GOP number calculated by said first calculation means.

4. An image recording apparatus according to claim 1, wherein said first calculation means successively stores the GOP number of each of GOPs of the inputted image signal, the position of the intra-picture of the GOP and the number of frames up to the GOP of the GOP number and makes use of the stored information to calculate the GOP number of the GOP of the image signal which includes the intra-picture necessary to play back

the representative picture.

5. An image recording method, comprising:

a first recording control step of controlling recording of an inputted image signal into a first recording region of a recording medium;

a fetching step of fetching a frame number of a representative picture of the image signal;

a first calculation step of calculating a GOP number of a GOP of the image signal which includes an intra-picture necessary to play back the representative picture based on the frame number fetched by the processing of the fetching step;

a second recording control step of controlling recording of recorded position information corresponding to a recorded position on the recording medium of the GOP of the GOP number calculated by the processing of the first calculation step into a second recording region of the recording medium;

a second calculation step of calculating an offset between the intra-picture and the representative picture in the GOP of the GOP number calculated by the processing of the first calculation step; and

a third recording control step of controlling recording of the offset calculated by the processing of

the second calculation step into a third recording region of the recording medium.

6. A recording medium on which a computer-readable program is recorded, the program comprising:

    a first recording control step of controlling recording of an inputted image signal into a first recording region of a recording medium;

    a fetching step of fetching a frame number of a representative picture of the image signal;

    a first calculation step of calculating a GOP number of a GOP of the image signal which includes an intra-picture necessary to play back the representative picture based on the frame number fetched by the processing of the fetching step;

    a second recording control step of controlling recording of recorded position information corresponding to a recorded position on the recording medium of the GOP of the GOP number calculated by the processing of the first calculation step into a second recording region of the recording medium;

    a second calculation step of calculating an offset between the intra-picture and the representative picture in the GOP of the GOP number calculated by the processing of the first calculation step; and

a third recording control step of controlling recording of the offset calculated by the processing of the second calculation step into a third recording region of the recording medium.

7. An image playback apparatus, comprising:  
first acquisition means for acquiring a recorded position on a recording medium at which, of an image signal recorded in a first recording region of the recording medium, a GOP in which an intra-picture necessary to play back a representative picture of the image signal is recorded from a second recording region of the recording medium;

second acquisition means for acquiring an offset between the intra-picture and the representative picture in the GOP which includes the representative picture from a third recording region of the recording medium:

readout control means for controlling reading out of the GOP of the first recording region of the recording medium in which the intra-picture necessary to play back the representative picture is included based on the recorded position acquired by said first acquisition means; and

display control means for controlling displaying of the representative picture included in the image signal.

whose reading out is controlled by said readout control means, based on the offset acquired by said second acquisition means.

8. An image playback apparatus according to claim 7, wherein said first acquisition means acquires a recorded position on the recording medium at which a top frame of the GOP is recorded as the recorded position on the recording medium at which the GOP in which the intra-picture necessary to play back the representative picture is recorded.

9. An image playback method, comprising:

a first acquisition step of acquiring a recorded position on a recording medium at which, of an image signal recorded in a first recording region of the recording medium, a GOP in which an intra-picture necessary to play back a representative picture of the image signal is recorded from a second recording region of the recording medium;

a second acquisition step of acquiring an offset between the intra-picture and the representative picture in the GOP which includes the representative picture from a third recording region of the recording medium;

a readout control step of controlling reading out of the GOP of the first recording region of the recording

medium in which the intra-picture necessary to play back the representative picture is included based on the recorded position acquired by the processing of the first acquisition step; and

a display control step of controlling displaying of the representative picture included in the image signal, whose reading out is controlled by the processing of the readout control step, based on the offset acquired by the processing of the second acquisition step.

10. A recording medium on which a computer-readable program is recorded, the program comprising:

a first acquisition step of acquiring a recorded position on a recording medium at which, of an image signal recorded in a first recording region of the recording medium, a GOP in which an intra-picture necessary to play back a representative picture of the image signal is recorded from a second recording region of the recording medium;

a second acquisition step of acquiring an offset between the intra-picture and the representative picture in the GOP which includes the representative picture from a third recording region of the recording medium;

a readout control step of controlling reading out of the GOP of the first recording region of the recording

medium in which the intra-picture necessary to play back the representative picture is included based on the recorded position acquired by the processing of the first acquisition step; and

a display control step of controlling displaying of the representative picture included in the image signal, whose reading out is controlled by the processing of the readout control step, based on the offset acquired by the processing of the second acquisition step.